

HYUNDAI
Display Solutions by Expertise.

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Professional Display Solutions 2009

Display Solutions by Expertise.

HYUNDAI

Digital Display Solutions



Display Solutions by Expertise

Since the mid-90s, the name HYUNDAI has been synonymous with the design and production of state-of-the-art display technologies. Advanced devices offering sophisticated design and supreme image quality – with "built-in" future-proofing.

On the one hand the ongoing process of digitalization leads continuously to new fields of operation for digital displays. On the other hand the technical progress enables new capabilities in development and production. Being an expert for display solutions HYUNDAI IT with its products brings both together: new requirements from the market and the new technical prospects from production side. As a result there are innovative display solutions which will revolutionize the display market with state-of-the-art technology, new functions and new designs.

Join us on a voyage of discovery, and explore today what display solutions will be like tomorrow. HYUNDAI IT: The name of choice for a broad range of future-oriented applications. The technology of tomorrow, for today's trend and quality conscious customers. Welcome to the future. Welcome to HYUNDAI IT.

Indoor & Outdoor Public Displays

More and more large-sized digital LCD screens are replacing existing analogue display media for the presentation of information and advertising messages. Combined with a professional "Content Management Software" and attractively created content these "Digital Signage Systems" are launching to the next generation of public display devices. By using special "Out-Of-Home" LCD panels HYUNDAI IT's indoor and outdoor public displays ensure the presentation of digital signage contents in a

pin sharp, high bright and brilliant picture quality. Meeting all necessary technical requirements for professional display equipment these enhanced displays ensure a reliable and failure-free operation in any kind of indoor or outdoor environment. Providing an integrated video wall function as well as the options for touch screen functionality and tempered glass surface the HYUNDAI IT DID's are the most flexible and versatile visual interface for all kind of digital signage solution.



Touch Screen Monitors

HYUNDAI IT touch screen monitors combine the conventional output function with a touch controlled input function. This bi-directional interface makes the screens the easiest solution for interactive information flow and controlling of systems. Due to their solid design the monitors are resistant to moisture and dust and thus ensuring a long lifetime even if they are used for applications with a high operational demand like public information kiosk systems.

3D Displays

Opening access to another dimension HYUNDAI IT's 3D displays provide a new experience in virtual reality. In combination with professional computer aided engineering software, 3D models can be presented more plastically and thus closer to reality. Also for the post production of 3D movies and pictures as well as for PC gaming the new 3D monitors will be the first choice. Beside 3D operations the displays can be used as conventional monitor dealing with 2D contents without restrictions.



Outdoor Public Displays



OUTDOOR MEDIA TYPE

Enhanced Outdoor Displays for Digital Signage

The market for outdoor digital signage is growing worldwide. Providing different advantages compared to conventional outdoor advertising media, digital signage will be an interesting media for advertisers, outdoor media companies, cities and universities in the near future. Its high flexibility and the possibility of just-in-time content changes makes digital signage the perfect media for reaching target groups in a society which becomes more and more mobile.

HYUNDAI IT's outdoor displays are representing state-of-the-art display equipment for any outdoor environment. Meeting high industrial standards they are providing a high degree of operational reliability and high quality image, which are important preconditions for attracting successfully the attention of the audience.

All-Weather Proof

Fitted with an intelligent cooling and heating system, the outdoor displays are well prepared for standing any weather conditions. Thereby, they can be used in ambient temperatures from -40°C to +50°C.

Sunlight Proof

For installations in environments with brightest lightning conditions – even bright sunlight – HYUNDAI IT provides special displays that come with a high brightness panel. Using a special coating and different filters, glare and reflection on the screen is reduced to a minimum while brightness is increased at the same time. A protection against UV radiation is also assured.

Air-Looping-System

In order to protect the LCD panel against so called blackouts (black areas on the screen in the wake of overheating), HYUNDAI IT outdoor displays are equipped with a smart air-looping-system. This ensures a continuously air circulation between the glass and the panel and supports the transfer of warm air to the exterior.

Ultra High Brightness

Working with a backlight unit that is based on LEDs instead of conventional CCFL tubes, the high brightness panels are reaching an exceptional luminance of over 2500 cd/m². This ensures an optimal operation during both the day as well as the night time.

Auto Brightness Control

HYUNDAI IT outdoor displays come with an integrated light sensor that is measuring successively the ambient light. Accordingly the brightness of the panel will be adjusted automatically in order to safe resources and to enlarge the panel's life time.

Anti-Vandal Protection

Thanks to a special tempered security glass HYUNDAI IT's outdoor displays are well protected against any vandalism attacks.

IP 55/IP 65 Confirmity

In order to ensure the highest possible reliability and to keep industrial quality standards the outdoor displays are meeting all requirements of IP 55 as a basic and those of IP65 optionally.

	H460SC	H460SL	H705SL
Mode Name			
Screen Size	46" 116.84	46" 116.84	20" 177.8
Panel Type	5-PVA	5-PVA	5-PVA
Active Display Area (mm)	1018.35 x 572.54	1018.35 x 572.54	1549.44 x 871.56
Number of Pixels	1366 x 768 (WXGA)	1366 x 768 (WXGA)	1920 x 1080 (WUXGA)
Aspect Ratio	16 : 9	16 : 9	16 : 9
Display Colors	16.7 Mill	16.7 Mill	16.7 Mill
Brightness (cd/m ²)(typ)	1500	2500	2000
Contrast Ratio	2500 : 1	4.000 : 1 1.000.000 : 1 (DCR)	2500 : 1
Response Time (ms, GTG)	8	8	8
Viewing Angle (H/V)	178°/178°	178°/178°	178°/178°
Life Time	50,000h	30,000h	50,000h
Backlight type	CCFL	LED	LED
Connectivity & Control			
Input	VGA (15pin D-Sub) HDMI	1 1	1 1
Power Requirement	490 (Operating heating and cooling system: Max. 2.0 kW)	530 (Operating heating and cooling system: Max. 2.0 kW)	1.2kW (Operating heating and cooling system : Max.3.5kW)
Auto Cooling System	Yes	Yes	Yes
Auto Heating System	Yes	Yes	Yes
Feature			
Anti-Vandal and Anti-Reflection Glass	Yes (thickness: 13mm (glass: 5Tx2))	Yes (thickness: 13mm (glass: 5Tx2))	Yes (thickness : 13mm (glass : 5Tx2))
Auto brightness sensor	Yes	Yes	Yes
Touch Screen	No (option model H460SLU)	No (option: model H460SLU)	No (option: model H705SLU)
Mechanical			
Dimensions (mm)	Set (W x H x L mm) 700 x 1950 x 245	700 x 1950 x 245	1051 x 2200 x 305
Weight (kg)	79	79	150
Surface treatment	Surface treatment Powder coated, Powder salty	Powder coated, Powder salty	Powder coated, Powder salty
Environmental conditions	Temperature operational (°C) -40/-50 (min/max)	-40/-50 (min/max)	-40/-50 (min/max)
	Temperature storage (°C) -20/60 (min/max)	-20/60 (min/max)	-20/60 (min/max)
	Humidity (non-condensing) (%) 10 – 90	10 – 90	10 – 90
Approvals	EMI/EMC Safety FCC, CE cTUVus, TUV, CB IP55 – IP65	FCC, CE cTUVus, TUV, CB IP55 – IP65	FCC, CE cTUVus, TUV, CB IP55 – IP65

Technical details are subject of change without further notice. Errors excepted.


Outdoor Public Displays

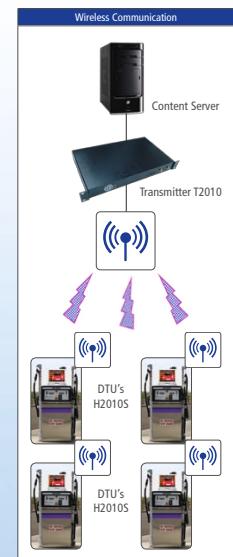


Key Features/Benefits

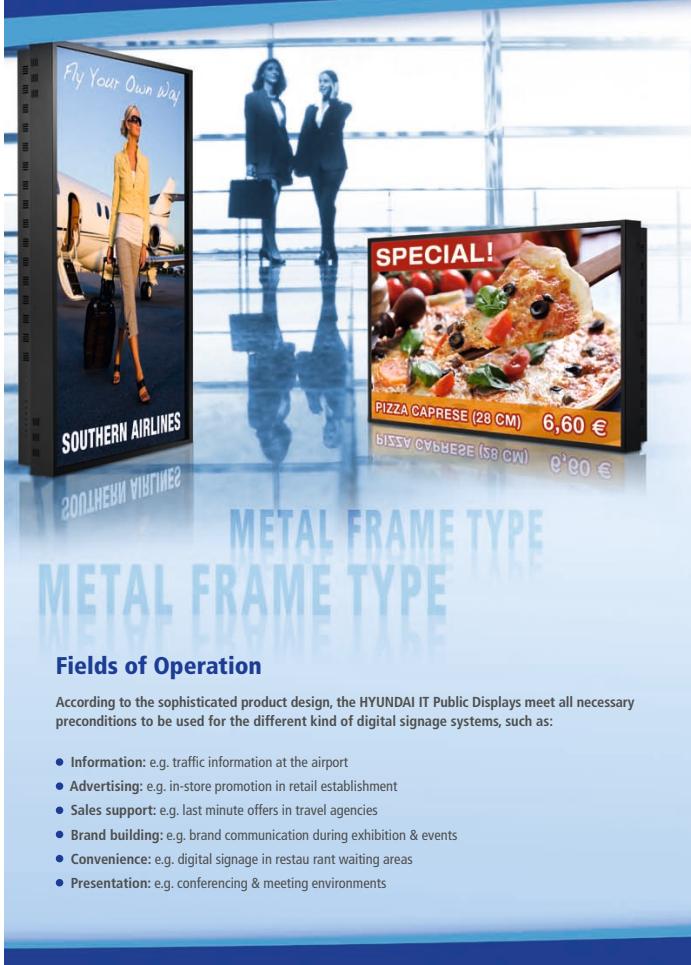
- Delivers high quality video on wide format
- Sunlight proof displays technology
- Integrated stereo audio speakers
- Auto Brightness Sensor
- Compliant with IP65
- Anti-Vandal bonding glass (Option)
- Auto Cooling & Heating System
- Wireless streaming thru transmitter unit
- Optical Bonding Glass
- Scalable system design for later expansion
- Compatibility with common fuel dispensers



Model Name	H2010	T2010
Screen Size	20.1"	—
Screen Q'ty	2 (Dual)	—
Active Display Area (mm)	408 (H) x 306 (V)	—
Number of Pixels	640 x R.G.B x 480	—
Aspect Ratio	4 : 3	—
Display Colors	0.26 Mill.	—
Brightness (cd/m²) / (typ)	600 (200-1000)	—
Contrast Ratio	600 : 1	—
Response Time (ms) / (typ)	Tr : 3ms/TT : 5ms	—
Viewing Angle	80°(L) / 80°(R) / 70°(U) / 60°(D)	—
Back light system	84 LED x 2	—
Glass Treatment	AR Coating	—
Glass Thick (mm)	5	—
Resolution (Max)	640 x 480 (31.5 kHz / 59.9Hz)	
HDMI	—	1
PC Audio	—	1
Intranet	—	1 (ETH0)
LAN	—	1 (ETH1)
RS232C	—	1 (Update)
In / Output		
RF ANT	2	2
Input Voltage	100 – 240VAC	100 – 240VAC
Current Draw On / Working (typ.) (w)	85	11
AC-ON/OFF SW	1 (Internal)	1 (External)
Cooling System		
Fan	1	1
Fan Speed (rpm) (typ)	2600	—
Speaker	Output	10W x 2
RF Ant	Gain	2.4GHz : 3dBi / 5.75GHz : 5dBi
Wireless	Standard Conformance	IEEE 802.11a, 802.11b, 802.11g
Antenna	Two U.FL antenna connectors for diversity function	
Mechanical	Dimension	548 x 454 x 342
Accessories	Set (W x H x L) (mm)	390 x 45 x 210
Weight	Set Weight (kg)	28.5kg
Safety & Regulations	Installation Manual, Power Cable, RF Ant*, Ant Bracket (Optional)	Power cord, RF Ant*, RF Cable*, Ant Bracket (Optional)
	Standard	UL/Csa, FCC, NEMA 4
	RoHS, WEEE	yes


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Digital Signage | Metal Frame Type



Fields of Operation

According to the sophisticated product design, the HYUNDAI IT Public Displays meet all necessary preconditions to be used for the different kind of digital signage systems, such as:

- Information: e.g. traffic information at the airport
- Advertising: e.g. in-store promotion in retail establishment
- Sales support: e.g. last minute offers in travel agencies
- Brand building: e.g. brand communication during exhibition & events
- Convenience: e.g. digital signage in restaurant waiting areas
- Presentation: e.g. conferencing & meeting environments

Special Out-Of-Home LCD Panel

By using commercial grade LCD panels for Out-Of-Home applications the HYUNDAI IT Digital Signage have a higher brightness and contrast than standard LCD TV panels. Our LCD panel enable to operate for working time and deliver clear and bright image contents in the portrait or landscape format without any losses of quality.

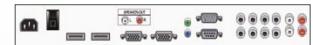


Fast Response Time

A fast response time of 8ms ensures the displaying of a clear image quality without ghosting effects for any fast moving video or image content.

High Connectivity

Providing an array of various professional input and output connectors [HDMI, DVI, Component/Composite (BNC), VGA] HYUNDAI IT Digital Signage afford an easy, flexible and multiple connection to a full range of external A/V devices.



High Brightness & Contrast

Achieving a brightness from 450 to 1500 cd/m² and working with a smart dynamic contrast technology, the special Out-Of-Home panels ensure bright and sharp pictures with a facsimile depth, even in bright enlightened environments.



Regular LCD TV Panel



HYUNDAI IT Out-Of-Home Panel

Metal Frame Housing

As the most of the HYUNDAI Digital Signage Displays have a solid metal frame housing it is guaranteed that the panel is well protected especially for public area installations. In addition, the metal frame gives the product a high quality and an appealingly optical appearance.



Full-HD Resolution

With a minimum resolution of 1366 x 768 and even the Full-HD resolution of 1920 x 1080, HYUNDAI IT Digital Signage can display high-resolution and more data information on the LCD screen by an aspect ratio of 16:9. The Full-HD resolution ensures brighter and sharper images if HD graphics and videos are displayed.



Wide Viewing Angle

The wider the panel's viewing angle is the more viewers are able to see the contents in a high quality. That matters for both meeting environments as well as public area installations. Coping with a wide viewing angle of 178° (h/v) HYUNDAI IT Digital Signage bring the content to the entire audience.

Heating Control & Cooling System

In order to avoid any image corruption or downtime by overheating HYUNDAI IT Digital Signage are equipped with an innovative built-in fan & heat control system, which makes the displays ready for the operation in any climatic environment.

RS-232C Interface

For an easy set-up and maintenance the built-in RS-232C port allows the remote controlling and configuration of the display's functions.

Wall Mounting

Wall mounting holes according to the VESA standard (Flat Panel Mounting Interface Standard) ensure the compatibility and thus an easy installation with universal wall-mounting brackets.

Environment-Friendly

Being compliant with the European RoHS directive and working with low power consumption during operation and power saving mode (< 1W) the displays conserve resources and operate environment-friendly.



Indoor Public Displays | Special Features



Built-In Video Wall Function

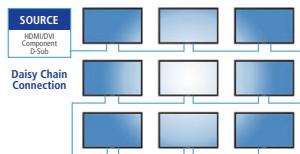
Due to the built-in multi display wall function the HYUNDAI IT Public Displays are well prepared for installing video wall configurations including up to 5 by 5 single units. For this reason no additional expensive equipment like video split processors is necessary.

Samples of Multi Display Wall Configurations



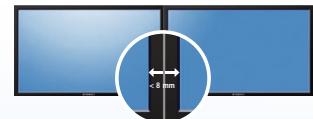
Daisy Chain Connection

In order to realize a multi display wall, the single units are linked by a Daisy Chain connection over HDMI, Component or the D-Sub interface. That implicates the advantage that just one display (master unit) needs a direct connection to the video source. The configuration of each display, regarding an individual ID and its position in the wall matrix, can be easily set-up over the on-screen menu or the RS232C interface. With all its advantages the built-in type multi display wall function allows a flexible configuration and an easy installation.



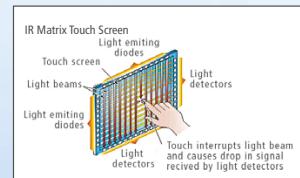
Ultra Narrow Bezel Design

Coping with an ultra narrow bezel design the HYUNDAI IT Public Displays are predestined for the operation in video wall configurations. Combined with the cutting edge function – which allows displaying the full picture content – the smart design of the HYUNDAI Public Displays ensure a maximum screen area with unified images and a minimum of viewable interruptions.



Multi Touch Screen Function (Option)

As an option all HYUNDAI IT Public Displays can be equipped with touch screen functionality. Based on the infrared ray matrix technology it's possible to operate the displays in either single- or multi-touch mode. That makes the HYUNDAI Public Displays an reliable touch screen solution for interactive applications.



Type	Infrared (Matrix)
Application	Graphics, Interactive, Severe Duty, Mission Critical Applications
Light Transmission	92-100%
Response Time	16ms
Touch Accuracy	98.5-99%
Environment	Indoor/Outdoor
Operating Temp	-41°C - +70°C
Life	Tested to perform over 100 million touch hits on a single point
Surface Hardness	5mm with Anti-Vandal
Input Mode	Bare or gloved finger, stylus, pen etc., any object that blocks light
Function	Senses interruption of invisible infrared array. Fully ADA compliant.
Size	24" - 57"
Usage	Large Screen, DID

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Tempered Security Glass (Option)

In order to protect the displays against vandal attacks and thus avoiding additional costs during the operational period it is possible to cover the screens with a tempered security glass. Combined with the opportunity of locking the keys for the on-screen menu and the solid metal frame housing the HYUNDAI Public Displays are the perfect visual equipment for the usage in high frequented public areas.



Indoor Public Displays | Special Solutions



Wide View Displays

Wide view displays are characterized by their special aspect ratio whose height is less than half of its width. This brings the benefit that the wide view displays will fit into places where displays with a regular height can't be installed. For example into the space between door and ceiling as well as installations in metros and trams are practical locations where these solutions are used as signage or advertising displays.



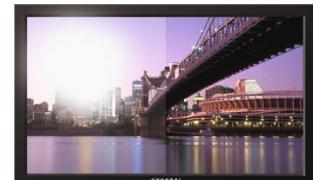
Optical Bonding Displays

For installations in environments with brightest lightning conditions – even bright sunlight – HYUNDAI IT provides special displays which are based on the optical bonding technique. This leads to the advantage that glare and reflection on the screens are reduced to a minimum while brightness is increased at the same time.

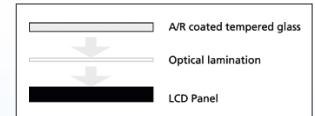
Due to a special coating the screens are protected against UV radiation, too. A digital signage screen behind a shop window which is regarded from the outdoor area is a typical application field for this special solution.

Advantages of optical Bonding

- Increases outdoor visibility (sunlight readability) as much as 400%
- Ensures a 99% penetration rate
- Improves contrast ratio
- 300% increased against shocks and scratches
- Prevents glass fogging
- Superb endurance against temperature changes and dust

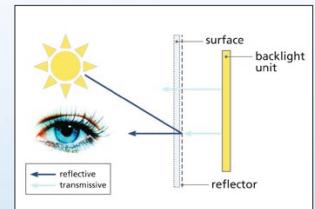


Regular Optical Bonding



Transflective Displays

The transflective displays technology contains a combination of both the conventional backlight transmissive mode as well as reflective mode characteristics. Depending on the ambient light conditions the advantage of either one or the other mode guarantees the readability of the screen contents at any time. By using the rear reflector, sunlight reflections increase the display's brightness. In case of darker ambient light conditions the backlight ensures the required display brightness. By the use of the ambient light for increasing the brightness, the power consumption of the backlight will be reduced and less heat is generated. This leads to a longer lifetime of the display in the end.



All-In-One Displays

HYUNDAI IT's all-in-one displays are combining public display and built-in player functionality. Being equipped with a built-in PC, a network player or a multi media player (MMP), these all-in-one displays enable easy installations without any additional AV equipment.



Indoor Public Displays | Technical Specification

Metal Frame Displays

Model	D320ML	D400ML	D405ML	D407ML	D425ML	D460ML
Screen Size	32"	40"	40"	40"	42"	46"
Active Display Area (mm)	697.68 x 392.26	885.17 x 497.66	885.6 x 498.15	930.5 x 523.01	1018.35 x 572.54	
Resolution	1366 x 768	1366 x 768	1920 x 1080	1920 x 1080	1365 x 768	
Aspect Ratio	16:9	16:9	16:9	16:9	16:9	
Display Colors	16.7 M	16.7 M	16.7 M	16.7 M	16.7 M	
Brightness (Typ)	450 cd/m ²	700 cd/m ²	450 cd/m ²	700 cd/m ²	500 cd/m ²	700 cd/m ²
Contrast Ratio	4000:1	2000:1	4000:1	3000:1	1000:1	2000:1
Response Time	8 ms	8 ms	8 ms	9 ms	9 ms	8 ms
Viewing Angle	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°
Lifetime	50,000h	50,000h	50,000h	50,000h	50,000h	50,000h
Resolution	Monitor (Frequency H/V) (49.024Hz/50Hz)	Monitor (Frequency H/V) (49.024Hz/50Hz)	Monitor (Frequency H/V) (67.54Hz/50Hz)	Monitor (Frequency H/V) (67.54Hz/50Hz)	Monitor (Frequency H/V) (49.024Hz/50Hz)	
Input	1x VGA (D-Sub) 2x HDMI 1x Composite (BNC) 1x Component (BNC) 1x S-Video	1x VGA (D-Sub) 2x HDMI 1x Composite (BNC) 1x Component (BNC) 1x S-Video	1x PC Audio 1x Component Audio 1x Composite Audio	1x PC Audio 1x Component Audio 1x Composite Audio	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)	
Output	Speaker (ready)					
Control	Data	1x RS232C				
OSD Language	HDMI, D-Sub, Component, Composite	GB / DE / FR / ES / IT / PT / SE / DK / FI				
Power	100~240VAC	100~240VAC	100~240VAC	100~240VAC	100~240VAC	100~240VAC
Options	Power Consumption	130 W	200 W	200 W	220 W	260 W
	Tempered Glass (Option)	D320MLG	D400MLG	D405MLG	D425MLG	D460MLG
	Touch Screen (Option)	D320MLI	D400MLI	D405MLI	D420MLI	D460MLI
	Other features	Auto Cooling System (1EA), Auto Power Control (On/Off Timer), Edge Correction				
Dimension	Wall Mounting (WxH) (mm)	400 x 200	400 x 200	400 x 200	400 x 200	600 x 200/400
	W x H x D (mm)	768.6 x 458.6 x 113.2	916 x 528.5 x 123.7	987.4 x 580.4 x 120.4	916 x 528.5 x 123	987.4 x 580.4 x 120.4
	Bezel Size (UD/U/R) (mm)	30/10/32/32	13.3/13.3/13.3/13.3	26.7/26.7/33.5/33.5	100/100/100/100	n. a.
	Weight Set (kg)	19	28	28	31	32
	Accessories	Power Cord, Manual, HDMI Cable, Remote Control				

Metal Frame Displays

Model	D465ML	D467ML	D468ML	D525ML	D705MLG	D825MLG
Screen Size	46"	46"	46"	52"	70"	82"
Active Display Area (mm)	1018.4 x 572.5	1018.08 x 572.67	1018.3 x 572.55	1152 x 648	1549.4 x 871.6	1805.7 x 1015.74
Resolution	1920 x 1080	1920 x 1080	1365 x 768	1920 x 1080	1920 x 1080	1920 x 1080
Aspect Ratio	16:9	16:9	16:9	16:9	16:9	16:9
Display Colors	16.7 M	16.7 M	16.7 M	16.7 M	16.7 M	16.7 M
Brightness (Typ)	450 cd/m ²	700 cd/m ²	500 cd/m ²	700 cd/m ²	600 cd/m ²	700 cd/m ²
Contrast Ratio	4000:1	4000:1	2000:1	1700:1	1500:1	1200:1
Response Time	8 ms	8 ms	8 ms	8 ms	8 ms	8 ms
Viewing Angle	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°
Lifetime	50,000h	50,000h	50,000h	50,000h	50,000h	50,000h
Resolution	Monitor (Frequency H/V) (49.024Hz/50Hz)	Monitor (Frequency H/V) (49.024Hz/50Hz)	Monitor (Frequency H/V) (67.54Hz/50Hz)	Monitor (Frequency H/V) (67.54Hz/50Hz)	Monitor (Frequency H/V) (49.024Hz/50Hz)	
Input	1x VGA (D-Sub) 2x HDMI 1x Composite (BNC) 1x Component (BNC) 1x S-Video	1x VGA (D-Sub) 2x HDMI 1x Composite (BNC) 1x Component (BNC) 1x S-Video	1x PC Audio 1x Component Audio 1x Composite Audio	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)	
Output	Speaker (ready)					
Control	Data	1x RS232C				
OSD Language	HDMI, D-Sub, Component, Composite	GB / DE / FR / ES / IT / PT / SE / DK / FI				
Power	Input Voltage	100~240VAC	100~240VAC	100~240VAC	100~240VAC	100~240VAC
Options	Power Consumption	260 W	260 W	200 W	320 W	900 W
	Tempered Glass (Option)	D465MLG	D467MLG	D468MLG	D525MLG	yes
	Touch Screen (Option)	D465MLI	D467MLI	D468MLI	D520MLI	D705MLI
	Other features	Auto Cooling System (1EA), Auto Power Control (On/Off Timer), Edge Correction				
Dimension	Wall Mounting (WxH) (mm)	1018.4 x 572.5	1018.08 x 572.67	1018.3 x 572.55	1152 x 648	1549.4 x 871.6
	W x H x D (mm)	1920 x 1080	1920 x 1080	1365 x 768	1920 x 1080	1920 x 1080
	Bezel Size (UD/U/R) (mm)	30/10/32/32	13.3/13.3/13.3/13.3	26.7/26.7/33.5/33.5	100/100/100/100	n. a.
	Weight Set (kg)	38.5	38.5	38.5	46.2	95
	Accessories	Power Cord, Manual, HDMI Cable, Remote Control				

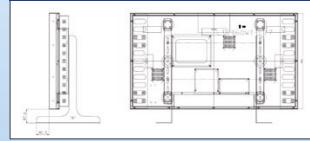
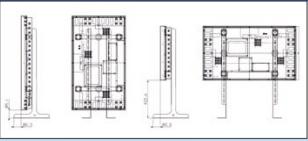
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Touch Screen Displays

Model Name	D320ML	D40(0/5)7ML	D42(0/5)7ML	D46(0/5)7ML	D525MI	D705MLI
Please refer to the specification of the corresponding models of standard metal frame displays.						
Touch Size (W x H x D) (mm)	787 x 482 x 11.5	968 x 573 x 14.5	1023 x 615 x 14.5	1105 x 653 x 14.5	1242 x 742 x 14.5	1692 x 1014 x 10
Resolution	8384 x 4736	10624 x 6016	10432 x 5824	11456 x 6400	12928 x 7296	16384 x 9856
Response Time (ms)	Touch: 16 Drawing: 25	Touch: 21 Drawing: 33	Touch: 8 Drawing: 13	Touch: 10 Drawing: 13	Touch: 14 Drawing: 15.2	Touch: 11 Drawing: 21
Glass	Transmission: 92% up to 100%, thickness: 5mm with anti-vandal					
Available object size for Touch (mm)	Touch: a7 Stylus: a8	Touch: a5 Stylus: a6	Touch: a5 Stylus: a6	Touch: a7 Stylus: a8	Touch: a7 Stylus: a8	Touch: a7 Stylus: a8
Interface	USB 1.1					
Weight (kg)	5,5	8,5	10	12	14	11
Power (W)	7,5	7,5	7,5	7,5	7,5	7,5
Touch Intensity	Over 60,000,000					
Detection Method	Infrared Rays					

Technical details are subject of changes without further notice. Errors expected.

Accessories

Table Stand Type A – landscape (Option)	Table Stand Type B – portrait/landscape (Option)
	
600 x 600/1200	600 x 600/1200

Indoor Public Displays | Technical Specification

Optical Bonding & Transflective Displays

Model	D400MLP	D460MP	D407MLT	D460MLT	D467MLT
Panel	Typ	Optical Bonding	Optical Bonding	Transflective	Transflective
	Screen Size	40"	46"	40"	46"
	Active Display Area (mm)	885,17 x 497,66	1018,35 x 572,54	885,17 x 497,66	1018,35 x 572,54
	Resolution	1366 x 768	1366 x 768	1920 x 1080	1920 x 1080
	Aspect Ratio	16:9	16:9	16:9	16:9
	Display Colors	16.7 M	16.7 M	16.7 M	16.7 M
	Brightness (Typ)	700 cd/m ²	1500 cd/m ²	700 cd/m ²	1500 cd/m ² (indoor)
	Brightness (Transflective)	-	-	960 cd/m ² (indoor)	960 cd/m ² (indoor)
	Contrast Ratio	2000:1	3000:1	2000:1	3000:1
	Response Time	8 ms	8 ms	9 ms	8 ms
Resolution	Viewing Angle	178°/178°	178°/178°	178°/178°	178°/178°
	Lifetime	50,000h	50,000h	50,000h	50,000h
	Monitor (Frequency H/V)	1360 x 768 (49,05Hz/50Hz) 1024 x 768 (67,54Hz/60Hz)	1360 x 768 (49,05Hz/50Hz) 1024 x 768 (67,54Hz/60Hz)	1920 x 1080 (49,05Hz/50Hz)	1920 x 1080 (67,54Hz/50Hz)
Optical Bonding	DTV	1080i (Multi Screen: 720p) (Multi Screen: 1080p)	1080p (Multi Screen: 720p) (Multi Screen: 1080p)	1080i (Multi Screen: 720p) (Multi Screen: 1080p)	1080p (Multi Screen: 1080p)
	Light Transmittance	98%	98%	-	-
Input	Light Reflectance	1%	1%	-	-
	Video	1x VGA (D-Sub) 2x HDMI 1x Composite (BNC) 1x Component (BNC) 1x S-Video	1x PC Audio 1x Component Audio 1x Composite Audio	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)
	Audio	1x PC Audio 1x Component Audio 1x Composite Audio	1x PC Audio 1x Component Audio 1x Composite Audio	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)
Output	Video	1x VGA (D-Sub) 1x DVI (HDMI connector) 1x Composite (BNC) 1x Component (BNC)	1x RS232C	1x RS232C	1x RS232C
	Audio	Speaker (ready)	Speaker (ready)	Speaker (ready)	Speaker (ready)
Control	Multi-Screen Function	HDMI, D-Sub, Component, Composite	Option	Option	Option
	OSD Language	GB / DE / FR / ES / IT / PT / SE / DK / FI	Option	Option	Option
Power	Auto Power Cont. (DPMS)	yes	yes	yes	yes
	Input Voltage	100~240VAC	100~240VAC	100~240VAC	100~240VAC
Options	Power Consumption	200 W	260 W	200 W	260 W
	Tempered Glass (Option)	D400MLPG	D460MLPG	D407MLTG	D460MTG
Touch Screen (Option)	D400MLP	D460MLP	D407MLT	D600MDT	D467MLT
	Other features	Auto Cooling System (TEA), Auto Power Control (On/Off Timer), Edge Correction	Auto Power Control (On/Off Timer), Edge Correction	Auto Power Control (On/Off Timer), Edge Correction	Auto Power Control (On/Off Timer), Edge Correction
Dimension	Wall Mounting (WxH) (mm)	400 x 200	600 x 200/400	400 x 200	600 x 200/400
	W x H x D (mm)	916 x 528.5 x 123.7	1051.7 x 604.9 x 123	916 x 528.5 x 123	1051.2 x 604.4 x 128.3
Weight	Bezel Size (UD/LR) (mm)	13.3/13.3/13.3	41/41/51.35/1.3	10/10/10/10	11/11/11.5/1.5
	Set (kg)	28	36.5	31	37.5
Environment Conditions	Temperature (°C)	0 - 40	20 - 80	0 - 40	20 - 80
	Humidity (%)	20 - 80	20 - 80	20 - 80	20 - 80
Accessories	Power Cord, Manual, HDMI Cable, Remote Control				
	Technical details are subject of changes without further notice. Errors excepted.				

Warranty Terms

HYUNDAI IT display products are high advanced technology products. By following international development and production standards, we always ensure the best product quality and thus high product reliability. Nevertheless, in case of any service event, we provide a fast and credible after-sales support. According to the customer needs we are providing different service levels.

SERVICE LEVEL	DESCRIPTION
STANDARD	2 years pick-up, repair & return
HOME-IN	On-Site analysis by Engineer. If necessary a delivery of a new unit and immediate replacement. Customer is free in un-installation and delivery time consumption.
PREMIUM	Wherever product is displayed, in next business day it's reworking. Warranty extension up to 5 years. Includes configuration, delivery, installation and maintenance.

All-in-One Displays

Model	P425MN	P465MN	
Panel	Screen Size	42"	46"
	Active Display Area (mm)	930.25 x 523.01	1018.08 x 572.67
	Resolution	1920 x 1080 (WXGA)	1920 x 1080 (WXGA)
	Aspect Ratio	16:9	16:9
	Display Colors	16.7 M	16.7 M
	Brightness (Typ)	500 cd/m ²	450 cd/m ²
	Contrast Ratio	1000:1	4000:1
	Response Time	8 ms	8 ms
	Viewing Angle	178°/178°	178°/178°
	Lifetime	50,000h	50,000h
Resolution	Monitor (Frequency H/V)	1920 x 1080 (67,54Hz/50Hz)	1920 x 1080 (67,54Hz/50Hz)
	DTV	1080p (Multi Screen: 1080p) (Multi Screen: 1080p)	1080p (Multi Screen: 1080p) (Multi Screen: 1080p)
	VGA (D-Sub)	1	1
Input	LAN	1	1
	USB	3	3
	RS232C	1	1
Output	Speaker	1	1
	Input Voltage	100~240VAC	100~240VAC
Power	Power Consumption/DPMS	220 W/2W	260 W/2W
	Auto Cooling System	yes (TEA)	yes (TEA)
Others	Tempered Glass	Option	Option
	Touch Screen	Option	Option
Feature	Player Type	PC	PC
	Other features	Auto Power Control (On/Off Timer), Edge Correction	Auto Power Control (On/Off Timer), Edge Correction
Mechanical	Mounting Hole	600 x 200/400	600 x 200/400
	Dimension (mm)	987.4 x 580.4 x 125	1087.4 x 631.4 x 114.5
Weight	Set (kg)	36.5	48
	Technical details are subject of changes without further notice. Errors excepted.		

Wide View Displays

Model Name	C420MK	
Display Panel	Screen Size	38.16"
	Active Display Area (mm)	930.25 x 272.40
	Number of Pixels	1366 x 400
	Aspect Ratio	3.4:1
	Display Colors	16.7 MIL
	Brightness (cd/m ²) / typ	500
	Contrast Ratio	1100 : 1
	Response Time (ms, GTG)	9
	Viewing Angle (H/V)	178° / 178°
	Out Line Dimension (mm)	983.4 x 328.1
Resolution	Life Time	50,000h
	Monitor	1360 x 768
Input	DTV	1080p
	VGA (15pin D-Sub)	1
Connectivity & Control	HDMI	1
	DVI	1
Output	Component (RCA)	1
	PC Audio	1
Feature	Component Audio	1
	RS232C	1
Mechanical	Output Speaker (Ready)	1
	Power Requirement	100 - 240VAC
Approvals	Consumption (typ) (W)	50
	Auto Power Control (DPMS)	Yes
Accessories	Tempered Glass	Option
	Dimension (mm)	Set (W x H x L) (mm)
Environment	Weight (kg)	987.5 x 332 x 113.5
	Set Weight (kg)	22.5
Temperature	Power cord, Manual, D-Sub Cable, Remocon	
	FCC, CE	
Humidity	cTUVus, TUV, CB	
	0°C - 40°C	
Weight	20% - 80%	
	Wall Mounting Hole (W x H mm)	600 x 200



Indoor Public Displays | Stand-Alone Type



Versatile Single Screen Information Signage

The HYUNDAI IT Stand-Alone Public Displays are the best solution for single screen information signage. Combining dynamic screen contents and the static depiction of your corporate identity the Stand-Alone Public Displays are bringing the maximum brand communication to the Point of Information. Exhibitions, hotel and offices lobbies, customer waiting areas and retail shops are some examples for versatile fields of operation.

Like all HYUNDAI IT Public Display products also the Stand-Alone Type is equipped with an Out-Of-Home LCD Panel which brings the advantages of 24/7 operation, a high contrast and brightness as well as the opportunity of using the panel in portrait or landscape format.

Flexible Content Management

Providing sufficient space in the cabinet and coping with a variety of video connectors the HYUNDAI IT Stand-Alone Public Displays can be equipped with a PC or any other AV player. In combination with digital signage software and the opportunity to update the contents via LAN, WLAN or 3G the Stand-Alone Public Displays are the easiest and most cost effective way to deliver your messages to your target audience.



Full Protection

In order to protect the high-tech components and ensure a long life the housing is made full of steel and can be locked. The panel is protected by a special tempered glass which supports a clear image of the screen contents.

Touch Screen Function (Option)

Optional the Stand-Alone Public Displays are available as touch screen models. The used infrared touch screen technology ensures maximum controlling comfort and makes them ready for a lot of interactive applications.

Easy Individualization



Class	D467SL	D5225L
Panel	Screen Size	46"
	Active Display Area	1018.4 x 572.5
	Number of Pixels	1920 x 1080 (WUXGA)
	Aspect Ratio	16:9
	Display Colors	16.7 M
	Brightness	700 cd/m ²
	Contrast Ratio	4000:1
	Response Time (ms)	1700:1
	View Angle (MVR)	178° / 178°
	Life Time	50,000h
Resolution (Max.)	Monitor	1920 x 1080
	DIV	1080p
Input	VGA (D-Sub)	1
	HDMI	1
	Composite (BNC)	1
	Component (BNC)	1
	PC Audio	1
	RS232C	1
	Component Audio	1
	Composite Audio	1
	VGA (S-Pin D-Sub)	1
	HDMI	1
Output	Composite (BNC)	1
	Component (BNC)	1
	Audio	1
	RS232C	1
	Speaker (Ready)	15W x 2CH
Feature	Tempered Glass	15W x 2CH
	Auto Cooling System	Yes
	Touch Screen	Yes
Auto Power Control	Option D467SL	Option D5225L
	Yes	Yes
OSD Language	10 Language	10 Language
	Set (WxHxD) (mm)	7018 x 1992 x 500
Dimensions	Stand Included (WxHxD) (mm)	780.4 x 1900 x 500
	Set Weight (kg)	120
Accessories	Power cord, Manual, HDMI Cable, Remote Control	125
	Technical details are subject of changes without further notice. Errors excepted.	



Stereoscopic 3D Displays

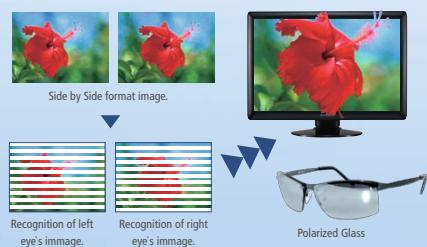


3D DISPLAYS 3D DISPLAYS

A New Dimension in Display Technology

In addition to conventional 2D operations HYUNDAI IT's stereoscopic 3D displays make it possible to watch 3D images with a breathtaking three-dimensional effect. For example 3D models created with CAD software can be displayed more plastically and thus allow a presentation close to reality. Beside professional applications the 3D displays are also suitable for multimedia operation such as 3D games, movies or pictures.

Based on the stereoscopic 3D technology the viewer is watching the 3D contents through a polarized 3D display by wearing polarized 3D glasses. A stereoscopic image presents the left and right eyes of the viewer with different perspective viewpoints, just as the viewer sees the visual world. From these two slightly different views, the eye-brain synthesizes an image of the world with stereoscopic depth.



Key Features

- Moire, ghosting and flicker free
- High contrast ratio and fast response time
- HDMI with HDCP support
- Wide viewing angle
- Certified for Windows Vista

3D Software Package

HYUNDAI IT's 3D displays come along with a software package of the leading 3D software supplier DDD:

- 3D Media Player
- 3D Experience
- 3D Google Earth
- 3D games driver

3D Visualizer/OpenGL driver (Option)

3D Visualizer enables selected third party applications to work on HYUNDAI IT's 3D displays. Using 3D displays and 3D Visualizer, 3D models appear to have a real physical depth, just like the actual objects they are modelling.

For more information on DDD's TriDef software please visit: <http://www.tridef.com>.

Recommended Hardware Requirements

Intel® Core 2 Duo or Athlon™ 64 X2 Dual-Core CPU, 1GB RAM, NVIDIA® GeForce 6600 or ATI Radeon™ X800, 100MB free disk space, Windows® XP, Vista (32Bit), DirectX 9.0c compatible sound card, Internet connection, DVD-ROM drive, Network card.

Model Name	W220S	W240S	S320D	S465D
Filter			Circular polarized filter	
Compatibility			2D/3D compatible	
3d format			Horizontal interlaced	
3D Technology				
Viewing Angle (H/V)	160°/10°	160°/10°	178°/20° (typ. CR10)	178°/20° (typ. CR10)
Supported 3d Resolution	1680 x 1050	1920 x 1200	1366 x 768	1920 x 1080
Conversion			2D/3D image convertible	
Viewing Distance (Recm.)	70 cm	70 cm	Over 1.5 m	Over 1.5 m
Type	A-Si TFT Active Matrix			
Size / Diagonale / Display Area (H/V)	22" / 473.7 x 296.1 mm	24" / 518.4 x 324 mm	32" / 697.6845 x 392.256 mm	46" / 1018.4 x 572.5 mm
Pixel Pitch (H/V)	0.282 x 0.282 mm	0.270 x 0.270 mm	0.1075 x 0.1075 mm	0.530 x 0.530 mm
Viewing Angle (H/V)	160° / 160° (CR<=10)	178° / 178° (CR<=10)	178° / 178° (CR<=10)	178° / 178° (CR<=10)
Contrast Ratio	1,000:1 / 10,000:1 (DCR)	1,000:1 / 10,000:1 (DCR)	3,000:1 / 6,000:1 (DCR)	3,000:1 / 6,000:1 (DCR)
Response Time	5 ms (typical)	6 ms (typical)	8 ms (GIG)	8 ms (GIG)
Brightness	300 cd/m² (typical)	500 cd/m² (typical)	500 cd/m² (typical)	500 cd/m² (typical)
Aspect Ratio	16:10	16:10	16:9	16:9
Colors	16.7 M	16.7 M	16.7 M	16.7 M
Resolution	Maximum / Recommended 1680 x 1050 @ 60Hz	1920 x 1200 @ 60Hz	1360 x 768 @ 60Hz	1920 x 1080 @ 60Hz
Input Signal	Analog RGB / DVI-D HDMI-HDCP / Component S-Video/Composite	1/1 1/- -/-	1/1 1/1 -/-	1/- 1/1 1/1
PC Audio	Yes	Yes	Yes	Yes
Plug-and-Play	VESA DDC 2B	VESA DDC 2B	VESA DDC 1/2B	VESA DDC 1/2B
Power Management	VESA DPMS	VESA DPMS	VESA DPMS	VESA DPMS
Power	Voltage 100-240V AC 2.0A	100-240V AC 2.0A	100-240V AC 5.0A	100-240V AC 5.0A
Dimensions	Consumption 45 Watt (typical)	45 Watt (typical)	150 Watt (typical)	230 Watt (typical)
Weight	Type Unit (W x H x D) 522 x 412 x 210 mm	Internal Power Supply	Internal Power Supply	Internal Power Supply
Scope of Accessories	Power cable, DVI Cable, D-Sub Cable, Audio Cable, Quick Installation guide, 3D glasses, HDMI-DVI Cable(S465D only) CD-ROM: User manual, Driver, ICM profile, 3D software package	Power cable, DVI Cable, D-Sub Cable, Audio Cable, Quick Installation guide, 3D glasses, HDMI-DVI Cable(S465D only) CD-ROM: User manual, Driver, ICM profile, 3D software package	Power cable, DVI Cable, D-Sub Cable, Audio Cable, Quick Installation guide, 3D glasses, HDMI-DVI Cable(S465D only) CD-ROM: User manual, Driver, ICM profile, 3D software package	Power cable, DVI Cable, D-Sub Cable, Audio Cable, Quick Installation guide, 3D glasses, HDMI-DVI Cable(S465D only) CD-ROM: User manual, Driver, ICM profile, 3D software package

Technical details are subject of changes without further notice. Errors reserved.



Touch Screen Displays



Customer Service

Get in Touch with a New Interface

The HYUNDAI IT LCD touch screen monitors unite the newest touch screen technology and timeless design with an optimal price-performance ratio. They can be used for applications in areas like POS, medical or monitoring & control.

Key Features

- reliable functionality thanks to 5-wire resistive touch screen technology
- robust design by hard surface (3H) and well fixing dual hinge stand
- sharp and brilliant pictures by high contrast and brightness

	G70TR	G90TR
type	5-Wire Resistive Touch Screen	5-Wire Resistive Touch Screen
controller interface	USB	USB
surface type / hardness	anti-glare 3H	anti-glare 3H
light transmission	>81%	>81%
response time: touch / drawing	< 10 ms (typical) / 35 ms (max.)	< 10 ms (typical) / 35 ms (max.)
touch accuracy	98.5 - 99%	98.5 - 99%
environment	indoor/outdoor, moisture and dust resistant	indoor/outdoor, moisture and dust resistant
operating temperature	0°C - +50°C	0°C - +50°C
lifetime	tested to perform over 30 million touches on a single point	
resolution	2048 x 2048	2048 x 2048
input mode	bare or gloved finger, stylus, pen etc.	bare or gloved finger, stylus, pen etc.
function	senses pressure exerted on the screen	senses pressure exerted on the screen
Panel Technology	A-Si TFT Active Matrix / TN	A-Si TFT Active Matrix / TN
size: diagonale active display area	17" (43,18 cm) 337.9 x 270.3 mm	19" (48,26 cm) 376.3 x 301.1 mm
viewing Angle	160° / 160° (horizontal / vertical)	160° / 160° (horizontal / vertical)
pixel pitch	0,264 mm (H x V)	0,264 mm (H x V)
contrast ratio	800:1 (typical)	1000:1 (typical)
luminance	300 cd/m² (typical)	300 cd/m² (typical)
response time	T _{GT} =1.5ms, T _L =3.5ms (typical)	T _{GT} =1.5ms, T _L =3.5ms (typical)
aspect ratio	5:4	5:4
colors	16.7 M	16.7 M
Resolution	maximal recommended	1280 x 1024 @ 75 Hz 1280 x 1024 @ 60 Hz
Connectors	analog digital	15-pin D-Sub 24-pin DVI-D
Plug-and-Play	VESA DDC 1/2B (EDID 1.3)	VESA DDC 1/2B (EDID 1.3)
Power Management	VESA DPMS	VESA DPMS
Power Supply System	voltage consumption type	100 - 240V AC 1,5A (22 Watt) external DC 12V 100 - 240V AC 1,5A 36 Watt external DC 12V
Safety & Regulations	NRTL, CB, TUV-GS, FCC, CE, RoHS, WEEE, ISO 13490-2 (class 2)	
Other Features	audio system	2 W x 2 headphones jack
	Kensington slot Wallmounting holes	yes yes (VESA: 75 x 75mm)
Stand	type	dual hinge stand, height-adjustable
Cabinet Color		black
Dimensions	unit packed (W x H x D)	382 x 403 x 200 mm 436 x 378 x 140 mm
Weight	unit packed	4.95 kg 6.4 kg
Scope of Delivery		Power cord, D-Sub cable, audio cable, USB cable, warranty card, CD-ROM: user manual, monitor driver, touch screen driver

Technical details are subject of changes without further notice. Errors excepted.

The HYUNDAI IT Story

HYUNDAI Electronics first set up a monitor division at its electronics corporation in 1984. After launching the first monochrome monitor, HYUNDAI continuously developed its product range, rapidly succeeding in expanding production to over 1 million units per year. HYUNDAI has been a leading manufacturer of TFT displays in a variety of sizes since the mid-1990s. In 2000, the monitor division parted company with the parent corporation to become what is today Hyundai IT Corp., Korea, and associated

HYUNDAI IT Europe GmbH. The company operates in-house research, development and production facilities to guarantee cutting-edge technology at all times and maximize customer satisfaction. "We focus on providing flawless, comprehensive service and after-sales support. We will continue to focus operations according to the needs of our customers, and combine state-of-the-art technology with the highest service standards", states President of HYUNDAI IT Europe GmbH, Mr. Y.H. Shin, in confirmation of the company's recipe for success.

Full Product Portfolio

Being an expert for digital display solutions, HYUNDAI IT is offering a full range of products for both consumer as well as professional customers:



LCD Monitor



Monitor + TV



3D Monitor



Touch Screen Monitor



Indoor Public Displays



3D Display



Stand-Alone Type



Outdoor Public Displays

